EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	15	provid$4 and restrict$4 and transm$6 and configerat$4 adj file and maintain$3 and TFTP and us$3 and DHCP adj server and associate and un adj modified and CM configeration and filename and IP adj address and receipt and DHCP adj REQUEST and stor$3 and coordination adj pass adj phrase and generat$4 first adj authentication adj key and creat$3 and modif$5 combin$3 and authentication adj key and transmit$4 and DHCP adj RESPONSE and TFTP and server and pars$3 and second adj authentication adj key and match$3 and depend not adj known.clm.	US-PGPUB	OR	ON	2007/08/16 16:18
L2	411626	provid$4 with restrict$4 with transm$6 with configerat$4 adj file with maintain$3 with TFTP with us$3 with DHCP adj server with associate with un adj modified with CM configeration with filename with IP adj address with receipt with DHCP adj REQUEST with stor$3 with coordination adj pass adj phrase with generat$4 first adj authentication adj key with creat$3 with modif$5 combin$3 with authentication adj key with transmit$4 v DHCP adj RESPONSE with TFTP with server with pars$3 with second adj authentication adj key with match$3 with depend not adj known.clm.	US-PGPUB	OR	ON	2007/08/16 16:21
L3	134998	l2 and @py<"2004"	US-PGPUB	OR	ON	2007/08/16 16:30
L4	7414	713/200	US-PGPUB; USPAT	OR	ON	2007/08/16 16:30
L5	1	l1 and L4	US-PGPUB	OR	ON	2007/08/16 16:31
L6	305	726/4	US-PGPUB; USPAT	OR	ON	2007/08/16 16:31
L7	0	l1 and L6	US-PGPUB	OR	ON	2007/08/16 16:31
L8	80	726/18	US-PGPUB; USPAT	OR	ON	2007/08/16 16:31
L9	0	l1 and L8	US-PGPUB	OR	ON	2007/08/16 16:31

EAST Search History

L10	138	726/21	US-PGPUB; USPAT	OR	ON	2007/08/16 16:31
L11	0	l1 and L10	US-PGPUB	OR	ON	2007/08/16 16:32
L12	2961	713/168	US-PGPUB; USPAT	OR	ON	2007/08/16 16:32
L13	4	l1 and L12	US-PGPUB	OR	ON	2007/08/16 16:34
L14	159	380/229	US-PGPUB; USPAT	OR	ON	2007/08/16 16:34
L15	0	l1 and L14	US-PGPUB	OR	ON	2007/08/16 16:35
L16	783	705/67	US-PGPUB; USPAT	OR	ON	2007/08/16 16:35
L17	0	l1 and L16	US-PGPUB	OR	ON	2007/08/16 16:35
L18	174	l2 and L4	US-PGPUB	OR	ON	2007/08/16 16:36
L19	0	l2 and L6	US-PGPUB	OR	ON	2007/08/16 16:36
L20	0	l2 and L8	US-PGPUB	OR	ON	2007/08/16 16:36
L21	0	l2 and L10	US-PGPUB	OR	ON	2007/08/16 16:36
L22	123	l2 and L12	US-PGPUB	OR	ON	2007/08/16 16:37
L23	1	l2 and L14	US-PGPUB	OR	ON	2007/08/16 16:37
L24	11	l2 and L16	US-PGPUB	OR	ON	2007/08/16 16:37
S1	16	"6598057"	US-PGPUB; USPAT	OR	ON	2007/08/16 15:54
S2	1	10/613659	US-PGPUB; USPAT	OR	ON	2007/08/14 16:13
S3	81	first adj authentication adj key	US-PGPUB; USPAT	OR	ON	2007/08/14 16:13
S4	71	second adj authentication adj key	US-PGPUB; USPAT	OR	ON	2007/08/14 16:32
S5	61	S3 and S4	US-PGPUB; USPAT	OR	ON	2007/08/14 16:14
S6	7414	713/200	US-PGPUB; USPAT	OR	ON	2007/08/14 16:15
S7	5	S5 and S6	US-PGPUB; USPAT	OR	ON	2007/08/14 16:31
S8	6726	dhcp	US-PGPUB; USPAT	OR	ON	2007/08/14 16:31
S9	1395	tftp	US-PGPUB; USPAT	OR	ON	2007/08/14 16:31
S10	717	S8 and S9	US-PGPUB; USPAT	OR	ON	2007/08/14 16:31
S11	1	S10 and S5	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23

EAST Search History

S12	3887	authentication adj key	US-PGPUB; USPAT	OR	ON	2007/08/14 16:32
S13	9	S10 and S12	US-PGPUB; USPAT	OR	ON	2007/08/14 16:57
S14	747	dhcp adj request	US-PGPUB; USPAT	OR	ON	2007/08/14 16:58
S15	216	dhcp adj response	US-PGPUB; USPAT	OR	ON	2007/08/14 16:58
S16	6	S14 adj S15	US-PGPUB; USPAT	OR	ON	2007/08/15 08:28
S17	320	tftp adj server	US-PGPUB; USPAT	OR	ON	2007/08/14 17:09
S18	0	S16 and S17	US-PGPUB; USPAT	OR	ON	2007/08/14 17:09
S19	3323	dhcp adj server	US-PGPUB; USPAT	OR	ON	2007/08/14 17:10
S20	192	S17 and S19	US-PGPUB; USPAT	OR	ON	2007/08/14 17:10
S21	0	S20 and S16	US-PGPUB; USPAT	OR	ON	2007/08/14 17:11
S22	1	S20 and S5	US-PGPUB; USPAT	OR	ON	2007/08/14 17:11
S23	2	S20 and S12	US-PGPUB; USPAT	OR	ON	2007/08/14 17:16
S24	587283	match	US-PGPUB; USPAT	OR	ON	2007/08/14 17:16
S25	75	S24 and S20	US-PGPUB; USPAT	OR	ON	2007/08/14 17:16
S26	22	S25 and @py<"2004"	US-PGPUB; USPAT	OR	ON	2007/08/15 07:10
S27	1	09/470105	US-PGPUB; USPAT	OR	ON	2007/08/15 07:10
S28	1395	tftp	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23
S29	747	dhcp adj request	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23
S30	216	dhcp adj response	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23
S31	6	S29 adj S30	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23
S32	0	S28 and S31	US-PGPUB; USPAT	OR	ON	2007/08/15 08:23
S33	8	09/800803	US-PGPUB; USPAT	OR	ON	2007/08/15 08:35

EAST Search History

S34	4	09/018400	US-PGPUB; USPAT	OR	ON	2007/08/15 13:17
S35	61	"5870134"	US-PGPUB; USPAT	OR	ON	2007/08/15 17:17
S36	27	"5506905"	US-PGPUB; USPAT	OR	ON	2007/08/15 17:32
S37	8	09/800803	US-PGPUB; USPAT	OR	ON	2007/08/15 18:17
S38	304	726/4	US-PGPUB; USPAT	OR	ON	2007/08/15 18:17
S39	80	726/18	US-PGPUB; USPAT	OR	ON	2007/08/15 18:17
S40	138	726/21	US-PGPUB; USPAT	OR	ON	2007/08/15 18:17
S41	2954	713/168	US-PGPUB; USPAT	OR	ON	2007/08/15 18:18
S42	27	713/155-159	US-PGPUB; USPAT	OR	ON	2007/08/15 18:18
S43	158	380/229	US-PGPUB; USPAT	OR	ON	2007/08/15 18:18
S44	783	705/67	US-PGPUB; USPAT	OR	ON	2007/08/15 18:28
S45	0	coordination adj passphrase	US-PGPUB; USPAT	OR	ON	2007/08/15 18:29
S46	1	coordination adj pass adj phrase	US-PGPUB; USPAT	OR	ON	2007/08/15 18:29

0010262820 - Drawing available
WPI ACC NO: 2000-575421/200054
XRPX Acc No: N2000-425871
**Asynchronous input-output cache memory has pair of circuits for accessing
system data bus and input-output data bus respectively, based on data
stored in data memory area**
Patent Assignee: HEWLETT-PACKARD CO (HEWP); HEWLETT-PACKARD DEV CO LP
  (HEWP)
Inventor: MONISH; THOMAS; SHAH M S; SPENCER T V
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
JP 2000227877	A	20000815	JP 1999360373	A	19991220	200054	B
US 7035981	B1	20060425	US 1998218333	A	19981222	200628	E

Priority Applications (no., kind, date): US 1998218333 A 19981222

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2000227877	A	JA	10	4	

  Alerting Abstract JP A
  NOVELTY - The cache has data memory area (120) for communicating with
system data bus and input-output data bus, simultaneously. Based on the
data stored in memory area, a pair of circuits access input-output data bus
and system bus, respectively.
  USE - In e.g. asynchronous input-output cache memory.
  ADVANTAGE - Queuing time in both system optical frequency domain and
input-output frequency domain is reduced due to the presence of the pair of
circuits.
  DESCRIPTION OF DRAWINGS - The figure shows the block diagram of
asynchronous input-output cache memory.
   120 Data memory area

Title Terms/Index Terms/Additional Words: ASYNCHRONOUS; INPUT; OUTPUT;
  CACHE; MEMORY; PAIR; CIRCUIT; ACCESS; SYSTEM; DATA; BUS; RESPECTIVE;
  BASED; STORAGE; AREA

Class Codes
International Classification (Main): G06F-012/08
International Classification (+ Attributes)
IPC + Level Value Position Status Version
  G06F-0013/00 A I F B 20060101
US Classification, Issued: 711144000, 711145000, 711141000, 711147000,
  711167000, 711130000, 711162000, 709400000, 713400000, 713502000,
  713600000, 710019000, 710027000, 710055000, 710061000, 710107000,
  710125000, 710200000, 710240000, 710244000, 710305000

File Segment: EPI;
DWPI Class: T01
Manual Codes (EPI/S-X): T01-H05B2

Original Publication Data by Authority

Original Abstracts:
The present invention is generally directed to a device including an

asynchronous **input** /output (I/O) **data** cache. The **device** **includes** a single **data** storage area that **is** disposed in communication with both a system data bus and a I/O **data** bus. Similarly, the **device** includes an **address** **storage** area that **is** configured to store system **addresses** corresponding to **data** contemporaneously stored in the **data** storage area. The **device** further includes a **first** circuit configured to **indicate** **validity** **status** of **data** within the data storage area for immediate access from the I/O data bus. A similar, second circuit is also included and configured to indicate validity **status** of **data** within the data storage area for immediate access from the system data bus. In accordance...

...I/O data bus, and providing a single address storage area configured to store system **memory** addresses corresponding to **data** contemporaneously stored in the data storage area. In accordance with the broad aspect of the ...

Claims:
...communication with both a system data bus and an I/O data bus, wherein the **data** storage area is **configured** **to** store a non- **duplicative** **data** set;a **single** address storage area **configured** to **store** system addresses corresponding to **data** contemporaneously stored in **the** **data** storage area;a first circuit **configured** to indicate validity status of data within the **data** storage **area** for **immediate** **access** from **the** I/O data bus; and **a** **second** circuit **configured** to **indicate** **validity** status of data within the data storage area for **immediate** access **from** the system **data** bus, wherein **the** **second** circuit **is** **configured** such that the validity status of the data stored within the **data** storage area **never** appears valid from the I/O data bus, without first appearing valid from the system...

DIALOG(R)File 350:Derwent WPIX
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0009182557 - Drawing available
WPI ACC NO: 1999-106394/199909
XRPX Acc No: N1999-076789
**Telecommunication system secure service connection - By encrypting data
transmitted via secure connection using encrypting algorithm**
Patent Assignee: SONERA OY (SONE-N); SONERA OYJ (SONE-N); TELECOM FINLAND
   OY (TELE-N); TELIASONERA FINLAND OYJ (TELI-N); SONERA SMARTTRUST OY
   (SONE-N)
Inventor: VATANEN H
Patent Family (12 patents, 81 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 1999001990	A2	19990114	WO 1998FI532	A	19980618	199909	B
FI 199702819	A	19981231	FI 19972819	A	19970630	199920	E
AU 199877717	A	19990125	AU 199877717	A	19980618	199923	E
EP 1027806	A2	20000816	EP 1998925695	A	19980618	200040	E
			WO 1998FI532	A	19980618		
US 6237093	B1	20010522	WO 1998FI532	A	19980618	200130	E
			US 1999474409	A	19991229		
AU 739814	B	20011018	AU 199877717	A	19980618	200174	E
NZ 502187	A	20011130	NZ 502187	A	19980618	200207	E
			WO 1998FI532	A	19980618		
JP 2002511994	W	20020416	WO 1998FI532	A	19980618	200242.	E
			JP 1999506485	A	19980618		
EP 1027806	B1	20051123	EP 1998925695	A	19980618	200577	E
			WO 1998FI532	A	19980618		
DE 69832517	E	20051229	DE 69832517	A	19980618	200603	E
			EP 1998925695	A	19980618		
			WO 1998FI532	A	19980618		
DE 69832517	T2	20060727	DE 69832517	A	19980618	200649	E
			EP 1998925695	A	19980618		
			WO 1998FI532	A	19980618		
FI 117366	B1	20060915	FI 19972819	A	19970630	200662	E

Priority Applications (no., kind, date): FI 19972819 A 19970630

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 1999001990	A2	EN	11	1	

National Designated States,Original: AL AM AT AU AZ BA BB BG BR BY CA CH
   CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC
   LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
   TJ TM TR TT UA UG US UZ VN YU ZW
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH
   GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 199877717	A	EN			Based on OPI patent WO 1999001990
EP 1027806	A2	EN			PCT Application WO 1998FI532
					Based on OPI patent WO 1999001990

Regional Designated States,Original: AT BE CH CY DE DK ES FI FR GB GR IE
   IT LI LT LU LV MC NL PT SE

US 6237093	B1	EN			Continuation of application WO 1998FI532
AU 739814	B	EN			Previously issued patent AU 9877717
					Based on OPI patent WO 1999001990
NZ 502187	A	EN			PCT Application WO 1998FI532
					Based on OPI patent WO 1999001990

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JP 2002511994    W    JA    14        PCT Application  WO 1998FI532
                                      Based on OPI patent   WO 1999001990
EP 1027806       B1   EN              PCT Application  WO 1998FI532
                                      Based on OPI patent   WO 1999001990
Regional Designated States,Original:  AT BE CH CY DE DK ES FI FR GB GR IE
   IT LI LT LU LV MC NL PT SE
DE 69832517      E    DE              Application  EP 1998925695
                                      PCT Application  WO 1998FI532
                                      Based on OPI patent   EP 1027806
                                      Based on OPI patent   WO 1999001990
DE 69832517      T2   DE              Application  EP 1998925695
                                      PCT Application  WO 1998FI532
                                      Based on OPI patent   EP 1027806
                                      Based on OPI patent   WO 1999001990
FI 117366        B1   FI              Previously issued patent   FI 9702819
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Alerting Abstract WO A2
  Method is for a system with telecommunication networks (1,3), terminal
devices (2,4) and telecommunication server (5). Device (1) is connected via
telecommunication connection (6) to the telecommunication server (5) and
device (3) is connected to the server (5) via second telecommunication
connection (7). The unique **address** of **device** (2) and the **data** needed
for **verification** of information giving **device** (2) **access** to server
(5) services are transmitted via **device** (4). The **data** sent by **device**
(4) is verified and connection (6) is set up based on the **verification**
and **address** **data** received if **device** (2) has the required right of
access to the server services.
  USE - Method is for setting up a secure service connection in a
telecommunication system e.g. the Internet and a telephone network or
mobile communication network.
  ADVANTAGE - Method allows reliable user identification and allows him to
order services offered by the network.

Title Terms/Index Terms/Additional Words: TELECOMMUNICATION; SYSTEM; SECURE
  ; SERVICE; CONNECT; DATA; TRANSMIT; ALGORITHM

Class Codes
International Classification (Main): H04M-011/00, H04Q-001/00
  (Additional/Secondary): H04L-012/66, H04Q-007/22, H04Q-007/24, H04Q-007/26
  , H04Q-007/30, H04Q-007/38
International Classification (+ Attributes)

IPC +	Level	Value	Position	Status	Version
H04L-0029/06	A	I		R	20060101
H04Q-0001/00	A	I	F	B	20060101
H04L-0012/22	A	I	F		20060101
H04M-0011/00	A	I	L		20060101
H04L-0029/06	C	I		R	20060101

US Classification, Issued: 713168000, 713182000, 380255000, 713162000

File Segment: EPI;
DWPI Class: T01; W01
Manual Codes (EPI/S-X): T01-H07C5S; T01-J08C; W01-A05B; W01-C02B6A;
  W01-C05B3B

  Alerting Abstract ...device (3) is connected to the server (5) via second
telecommunication connection (7). The unique **address** of **device** (2) and
the **data** needed for **verification** of information giving **device** (2)
access to server (5) services are transmitted via **device** (4). The **data**
sent by **device** (4) is verified and connection (6) is set up based on the

verification and **address** **data** received if **device** (**2**) has the required right of access to the server services...

Original Publication Data by Authority

Original Abstracts:
...telecommunication connection (7). In an embodiment of the invention,the unique address of the first **terminal** **device** (**2**) **and** the **data** needed for the **verification** of information giving the **first** terminal **device** (2) **access** to the **services** of the telecommunication server (5) are transmitted via the second terminal device (4); the data sent by the **second** terminal **device** are **verified** in **the** telecommunication **server** ; and the **first** telecommunication connection (6) from the telecommunication server to the first terminal device is **set** up **based** on the **verification** **and** the address **data** received if **the** **first** terminal **device** has **the** required right of access to the services of the telecommunication server...

...terminal device is connected to the telecommunication server via a second telecommunication connection. The unique **identifying** address of the **first** terminal **device** and the **data** needed **to** **verify** that the **first** terminal **device** is permitted **access** to **the** services of the telecommunication server are transmitted to the telecommunication server via the second terminal device and second telecommunication connection, **and** the **data** sent by the **second** **terminal** **device** are **verified** at the **telecommunication** server. **If** the **first** terminal **device** is determined **to** have the required right of access to the services of the telecommunication server, the first telecommunication connection from the telecommunication server to the first terminal device is set **up** **based** **on** the successful **verification** **and** using the address data received by the telecommunication server...

...connection (7). In an embodiment of the invention,the unique address of the first terminal **device** (2) and the **data** needed for **the** **verification** **of** **information** giving the **first** terminal **device** (**2**) **access** to the services of the telecommunication server (5) are transmitted via the second terminal **device** (4); the **data** sent by the **second** terminal **device** are **verified** **in** the telecommunication server; **and** the **first** telecommunication **connection** (6) from the telecommunication server to the first terminal device is set up **based** on the **verification** and **the** address **data** received if the **first** **terminal** **device** has **the** **required** right of access to the services of the telecommunication server...

Claims:
...encrypted message packets;</br> transmitting via the second terminal device (4) the unique address of the **first** **terminal** **device** (**2**) and **information** **authorizing** the use of services and/or ordering of services to the telecommunication **server** (5);</br> **verifying** the **data** sent **by** the **second** **terminal** **device** (**4**) in the **telecommunication** **server** (5); and</br> **setting** **up** the first telecommunication connection (6) from the telecommunication server to the **first** **terminal** **device** (2) **based** on the **verification** and **the** **address** **data** received if the first terminal device (2) has the required right of access to use and/or order the services **of** the **telecommunication** **server** (**5**).

...5), via the second terminal device (4) and the second telecommunication connection (7), a unique **identifying** address of

the **first** terminal **device**0 (**2**) and data permitting
verification by the telecommunication **server** as **to** whether **the**
first terminal device (2) is permitted access to a service provided
by the telecommunication server (5);verifying, at the
telecommunication server (5), the **data** sent to the
telecommunication server via the second terminal device (4) and the
second telecommunication...
...device (2) is permitted access to the service provided by the
telecommunication server; andestablishing, **where** said **verifying** step
determines that **the** **first** terminal **device** (2) is permitted
access to the service, the first telecommunication connection (6)
between the first terminal device (3) and the telecommunication
server (5) using the unique **identifying** address of the **first**
terminal **device** (**2**) **received** by the telecommunication server
(5) from the second **terminal** **device.>**

0014763117 - Drawing available
WPI ACC NO: 2005-110771/200512
XRPX Acc No: N2005-095681
 Cable   modem **transmission restriction method for use with e.g. personal
computer, involves transmitting** configuration   file **to** cable   modem
only if authentication keys generated based on configuration   file **match
with each other**
Patent Assignee: DANFORTH A (DANF-I); GOULD K (GOUL-I); TIME WARNER CABLE
   INC (TIME-N)
Inventor: DANFORTH A; GOULD K
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 20050005154	A1	20050106	US 2003613659	A	20030703	200512	B
CA 2473326	A1	20060108	CA 2473326	A	20040708	200612	NCE

Priority Applications (no., kind, date): CA 2473326   A 20040708; US
   2003613659 A 20030703

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20050005154	A1	EN	22	9	
CA 2473326	A1	EN			

   Alerting Abstract US A1
   NOVELTY - An unmodified **cable   modem** (CM) **configuration   filename**
is associated to a CM internet protocol (IP) address and an authentication
key is generated. A modified CM **configuration   filename** is generated by
combining previous filename with the key. The modified filename is parsed
to unmodified filename by which a new authentication key is generated. The
configuration   file is transmitted to CM only when the keys match
mutually.
   USE - For providing restricted transmission of **cable   modem** (CM)
configuration   file maintained on trivial file transfer protocol (TFTP)
server, for use with terminal such as personal computer and game console
device.
   ADVANTAGE - Unauthorized access to CM **configuration   files** is reduced
or eliminated.
   DESCRIPTION OF DRAWINGS - The figure illustrates CM request and response
for establishing IP connectivity.

   Technology Focus
   INDUSTRIAL STANDARDS - The authentication key is generated by encryption
functions specified by data encryption standard (DES), data encryption
algorithm (DEA), extended data encryption standard (DESX), advanced
encryption standard (AES) including Rivest's Cipher (RC6), digital
signature algorithm (DSA), RC2, RC4, RC5, secure hash algorithm (SHA),
message digest algorithm (MD2,MD4,MD5), international data encryption
algorithm (IDEA), secure and fast encryption routine (SAFER), fast data
encipherment algorithm (FEAL), Skipjack, Blowfish, Carlisle Adams and
Stafford Travares (CAST) and ElGamal. The encrypted wireless network
conforms to ~IEEE 802.11~ .

Title Terms/Index Terms/Additional Words: CABLE; MODEM; TRANSMISSION;
   RESTRICT; METHOD; PERSON; COMPUTER; TRANSMIT; CONFIGURATION; FILE;
   AUTHENTICITY; KEY; GENERATE; BASED; MATCH

Cable   modem **transmission restriction method for use with e.g. personal computer, involves transmitting** configuration   file **to** cable   modem **only if authentication keys generated based on** configuration   file **match with each other**

Original Titles:
Method to block unauthorized access to TFTP server **configuration   files**

Alerting Abstract ...NOVELTY - An unmodified **cable   modem** (CM) **configuration   filename** is associated to a CM internet protocol (IP) address and an authentication key is generated. A modified CM **configuration   filename** is generated by combining previous filename with the key. The modified filename is parsed to unmodified filename by which a new authentication key is generated. The **configuration   file** is transmitted to CM only when the keys match mutually.USE - For providing restricted transmission of **cable   modem** (CM) **configuration   file** maintained on trivial file transfer protocol (TFTP) server, for use with terminal such as personal...
...ADVANTAGE - Unauthorized access to CM **configuration   files** is reduced or eliminated...

Original Publication Data by Authority

Original Abstracts:
The present invention teaches methods and systems for blocking unauthorized access to **cable   modem   configuration   files   stored   on   trivial file** transfer protocol (TFTP) servers. Filenames are modified by the DHCP to incorporate an authentication key (and optional cloaking) prior to transmission to the **cable   modem** . When the **TFTP   server** receives a modified filename, it also generates an authentication key. The authentication keys must match in order for the **cable   modem** to receive **the   configuration   file** requested. At **a   minimum** , authentication keys depend upon the un-modified filename, the **cable   modem   IP address   and   a   " coordination   pass** phrase" known to the TFTP server and DHCP server, but not known to the **cable   modem** . Variations include **optional   cloaking** , various actions performed for non-matching authentication keys, selection of authentication key generating algorithm and inclusion of **cable** modem MAC address in the authentication key for all **cable   modems** or for **premium   service** customer **cable   modems.** >
Claims:
What is claimed is:1. A method for providing restricted transmissions of **cable   modem** (CM) **configuration   files** maintained on a trivial **file   transfer** protocol **server** (**TFTP**), the method comprising:using **a   dynamic** host **configuration** protocol (DHCP) server to associate an un-modified CM **configuration   filename** to a **cable   modem** Internet protocol (**IP**) **address** upon **receipt   of** a DHCP **REQUEST ;**

storing a coordination **pass phrase** on a DHCP server and a TFTP server;generating a **first authentication key** ;creating a modified CM **configuration filename** by combining a CM **configuration filename** **with the authentication key** ;transmitting the modified CM **configuration filename to** the **cable modem** in **a DHCP** RESPONSE;transmitting the modified CM **configuration** filename from the **cable modem to** the TFTP **server** ; **parsing** the modified CM **configuration filename** into the un-modified CM **configura**tion filename ;generating a **second authentication key** ;transmitting the CM **configuration file** to the **cable modem only if** the **first authentication key matches** the second **authentication key** ;wherein the **first authentication key** and the second **authentication key** **depend upon** the un- **modified** CM configuration filename, the **cable modem IP address** and the **coordination pass** phrase.

0014763117 - Drawing available
WPI ACC NO: 2005-110771/200512
XRPX Acc No: N2005-095681
 Cable   modem **transmission restriction method for use with e.g. personal
computer, involves transmitting** configuration file **to** cable modem
only if authentication keys generated based on configuration file **match
with each other**
Patent Assignee: DANFORTH A (DANF-I); GOULD K (GOUL-I); TIME WARNER CABLE
   INC (TIME-N)
Inventor: DANFORTH A; GOULD K
Patent Family (2 patents, 2 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
US 20050005154	A1	20050106	US 2003613659	A	20030703	200512	B
CA 2473326	A1	20060108	CA 2473326	A	20040708	200612	NCE

Priority Applications (no., kind, date): CA 2473326   A 20040708; US
   2003613659 A 20030703

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20050005154	A1	EN	22	9	
CA 2473326	A1	EN			

   Alerting Abstract US A1
   NOVELTY - An unmodified **cable   modem** (CM) **configuration   filename**
is associated to a CM internet protocol (IP) address and an authentication
key is generated. A modified CM **configuration   filename** is generated by
combining previous filename with the key. The modified filename is parsed
to unmodified filename by which a new authentication key is generated. The
configuration   file is transmitted to CM only when the keys match
mutually.
   USE - For providing restricted transmission of **cable   modem** (CM)
configuration   file maintained on trivial file transfer protocol (TFTP)
server, for use with terminal such as personal computer and game console
device.
   ADVANTAGE - Unauthorized access to CM **configuration   files** is reduced
or eliminated.
   DESCRIPTION OF DRAWINGS - The figure illustrates CM request and response
for establishing IP connectivity.

   Technology Focus
   INDUSTRIAL STANDARDS - The authentication key is generated by encryption
functions specified by data encryption standard (DES), data encryption
algorithm (DEA), extended data encryption standard (DESX), advanced
encryption standard (AES) including Rivest's Cipher (RC6), digital
signature algorithm (DSA), RC2, RC4, RC5, secure hash algorithm (SHA),
message digest algorithm (MD2,MD4,MD5), international data encryption
algorithm (IDEA), secure and fast encryption routine (SAFER), fast data
encipherment algorithm (FEAL), Skipjack, Blowfish, Carlisle Adams and
Stafford Travares (CAST) and ElGamal. The encrypted wireless network
conforms to ~IEEE 802.11~ .

Title Terms/Index Terms/Additional Words: CABLE; MODEM; TRANSMISSION;
   RESTRICT; METHOD; PERSON; COMPUTER; TRANSMIT; CONFIGURATION; FILE;
   AUTHENTICITY; KEY; GENERATE; BASED; MATCH

Class Codes
International Classification (Main): H04L-009/00
International Classification (+ Attributes)
IPC + Level Value Position Status Version
  H04L-0009/32 A I F   20060101
US Classification, Issued: 713200000

File Segment: EPI;
DWPI Class: T01; W01
Manual Codes (EPI/S-X): T01-C03A; T01-D01; T01-F05B2; W01-A05A

Cable   modem **transmission restriction method for use with e.g. personal
computer, involves transmitting** configuration   file **to** cable   modem
only if authentication keys generated based on configuration   file **match
with each other**

Original Titles:
Method to block unauthorized access to TFTP server **configuration   files**

Alerting Abstract ...NOVELTY - An unmodified **cable   modem** (CM)
configuration   filename is associated to a CM internet protocol (IP)
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configuration   filename is generated by combining previous filename with
the key. The modified filename is parsed to unmodified filename by which a
new authentication key is generated. The **configuration   file** is
transmitted to CM only when the keys match mutually.USE - For providing
restricted transmission of **cable   modem** (CM) **configuration   file**
maintained on trivial file transfer protocol (TFTP) server, for use with
terminal such as personal...
...ADVANTAGE - Unauthorized access to CM **configuration   files** is reduced
or eliminated...

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The present invention teaches methods and systems for blocking unauthorized
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authentication keys, selection of authentication key generating algorithm
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Claims:
What is claimed is:1. A method for providing restricted
transmissions of **cable   modem** (CM) **configuration   files** maintained on
a trivial **file   transfer** protocol **server** (**TFTP**), the method
comprising:using **a   dynamic** host **configuration** protocol (DHCP) server to
associate an un-modified CM **configuration   filename** to a **cable   modem**
Internet protocol (**IP**) **address** upon **receipt   of** a DHCP **REQUEST ;**

storing a coordination **pass** **phrase** on a DHCP server and a TFTP server;generating a **first** **authentication** **key** ;creating a modified CM **configuration** **filename** by combining a CM **configuration** **filename** **with** **the** **authentication** **key** ;transmitting the modified CM **configuration** **filename** **to** the **cable** **modem** in **a** **DHCP** RESPONSE;transmitting the modified CM **configuration** filename from the **cable** **modem** **to** the TFTP **server** ; **parsing** the modified CM **configuration** **filename** into the un-modified CM **configura**tion filename ;generating a **second** **authentication** **key** ;transmitting the CM **configuration** **file** to the **cable** **modem** **only** **if** the **first** **authentication** **key** **matches** the second **authentication** **key** ;wherein the **first** **authentication** **key** and the second **authentication** **key** **depend** **upon** the un- **modified** CM configuration filename, the **cable** **modem** **IP** **address** and the **coordination** **pass** phrase.

```
Set      Items    Description
S1       806213   ((CABLE OR DATA)()MODEM? OR CABLE? OR COMMUNICATION? OR DA-
                  TA OR HIGH???()SPEED? OR BROADBAND OR HOOK()UP)(3N)(MODEM? OR
                  DEVICE? OR INSTRUMENT? OR MECHANISM? OR MACHINE? ? OR UNIT? OR
                  APPARAT? OR HARDWARE?)
S2       55564    (KEY? ? OR DEVICE OR MECHANISM?? OR PASSWORD?? OR CODE? ? -
                  OR CODING OR ACCESS?)(5N)(CERTIF? OR AUTHENTIC? OR VERIF? OR -
                  VALID? OR AUTHORI?)
S3       8095     S2(3N)(ONE OR FIRST? OR 1ST OR PRIMARY OR INITIAL? OR ORIG-
                  INAL? OR MAIN OR REFER? OR SOURC?)
S4       2438     S3(5N)(MATCH? OR EQUATE? OR EQUATING OR PAIR OR COORDINAT?
                  OR CORRESPOND? OR IDENT? OR SQUARE? OR MATE? ? OR CORRELAT? OR
                  SAME OR MUTUAL? OR DEPEND? OR BASE? ? OR DERIV?)
S5       6677     S2(3N)(SECOND? OR COUPLE OR 2ND OR 2 OR TWICE OR ANOTHER? -
                  OR TWO OR DIFFERENT OR PAIR OR MORE(2N)ONE OR ADDITIONAL)
S6       165885   ((SET OR SETT??? OR SETS)()(UP OR UPS) OR PARAMETER? ? OR -
                  SETTING? ? OR CONFIGUR? OR PROPERT? OR OPTION? OR PROFIL? OR -
                  PREFEREN?)(3N)(FILE? OR DATA OR INFORMATION OR INFO)
S7       28771    S6(5N)(DELIVER? OR SEND??? OR SENT OR UPLOAD? OR DISTRIBUT?
                  OR TRANSFER? OR TRANSMI? OR BEAM??? OR LOAD??? OR POST??? ?)
S8       36717    S6(5N)(RECEIV? OR ACCEPT? OR ACQUIR? OR OBTAIN? OR PULL???-
                  ()DOWN?? OR PROCUR??? OR GET? ? OR FETCH??? OR RETRIEV? OR AC-
                  CESS?)
S9       10602    S1(2N)(IPADDRESS? OR (INTERNET()PROTOCOL OR IP OR LOGICAL -
                  OR DOT OR NETWORK?)()ADDRESS? OR ADDRESS?)
S10      9        S3:S4 AND S5 AND S1 AND S6 AND S9
File 350:Derwent WPIX 1963-2007/UD=200752
         (c) 2007 The Thomson Corporation
File 347:JAPIO Dec 1976-2007/Mar(Updated 070809)
         (c) 2007 JPO & JAPIO
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Set     Items    Description
S1      306100   ((CABLE OR DATA)()MODEM? OR CABLE? OR COMMUNICATION? OR DA-
                 TA OR HIGH???()SPEED? OR BROADBAND OR HOOK()UP)(3N)(MODEM? OR
                 DEVICE? OR INSTRUMENT? OR MECHANISM? OR MACHINE? ? OR UNIT? OR
                 APPARAT? OR HARDWARE?)
S2       73739   (KEY? ? OR DEVICE OR MECHANISM?? OR PASSWORD?? OR CODE? ? -
                 OR CODING OR ACCESS?)(5N)(CERTIF? OR AUTHENTIC? OR VERIF? OR -
                 VALID? OR AUTHORI?)
S3        3468   S2(3N)(ONE OR FIRST? OR 1ST OR PRIMARY OR INITIAL? OR ORIG-
                 INAL? OR MAIN OR REFER? OR SOURC?)
S4         504   S3(5N)(MATCH? OR EQUATE? OR EQUATING OR PAIR OR COORDINAT?
                 OR CORRESPOND? OR IDENT? OR SQUARE? OR MATE? ? OR CORRELAT? OR
                 SAME OR MUTUAL? OR DEPEND? OR BASE? ? OR DERIV?)
S5        3913   S2(3N)(SECOND? OR COUPLE OR 2ND OR 2 OR TWICE OR ANOTHER? -
                 OR TWO OR DIFFERENT OR PAIR OR MORE(2N)ONE OR ADDITIONAL)
S6      261284   ((SET OR SETT??? OR SETS)()(UP OR UPS) OR PARAMETER? ? OR -
                 SETTING? ? OR CONFIGUR? OR PROPERT? OR OPTION? OR PROFIL? OR -
                 PREFEREN?)(3N)(FILE? OR DATA OR INFORMATION OR INFO)
S7       14698   S6(5N)(DELIVER? OR SEND??? OR SENT OR UPLOAD? OR DISTRIBUT?
                 OR TRANSFER? OR TRANSMI? OR BEAM??? OR LOAD??? OR POST??? ?)
S8       19978   S6(5N)(RECEIV? OR ACCEPT? OR ACQUIR? OR OBTAIN? OR PULL???-
                 ()DOWN?? OR PROCUR??? OR GET? ? OR FETCH??? OR RETRIEV? OR AC-
                 CESS?)
S9         581   S1(2N)(IPADDRESS? OR (INTERNET()PROTOCOL OR IP OR LOGICAL -
                 OR DOT OR NETWORK?)()ADDRESS? OR ADDRESS?)
S10          0   S3:S4 AND S5 AND S1 AND S6 AND S9
File     2:INSPEC 1898-2007/Aug W1
         (c) 2007 Institution of Electrical Engineers
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         (c) 2007 American Mathematical Society
File   256:TecInfoSource 82-2007/Nov
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File   434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 2006 The Thomson Corp
File   583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
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